

## CLAIMS

1. Method, for storing register properties of an hardware device (ASIC1, ASIC2, ASIC3, ASIC4) having heterogeneous memory in a datastructure, said hardware device (ASIC1, ASIC2, ASIC3, ASIC4) being built according to a structure of modules and dependent sub-modules, wherein said register properties correspond to register properties of said modules and said sub-modules, **CHARACTERISED IN THAT** said method comprises the step of storing said register properties in a data-structure according to said structure of said hardware device (ASIC1, ASIC2, ASIC3, ASIC4) said register properties being arranged in an array for each module or dependent sub-module.

2. Data structure for holding register properties of an hardware device having heterogeneous memory (ASIC1, ASIC2, ASIC3, ASIC4), said hardware device (ASIC1, ASIC2, ASIC3, ASIC4) being built according to a structure of modules and dependent sub-modules, wherein said register properties correspond to register properties of said modules and said sub-modules, **CHARACTERISED IN THAT** said data-structure is adapted to hold said register properties in a structure according to said structure of said hardware device (ASIC1, ASIC2, ASIC3, ASIC4) wherein said register properties are arranged in an array for each module or dependent sub-module.

3. Data-structure according to claim 2, **CHARACTERISED IN THAT** said array corresponding to a module of said hardware device comprises a number of repetitions indicator, adapted to indicate the number of reoccurrences of a submodule of said module.

4. Data-structure according to claim 2 or 3, **CHARACTERISED IN THAT** said device properties in each said array includes either one of an initial

value of a register, the read-write bits, unstable read-write bits or read-reset bits.

5                   5. Data structure according to claims 2 to 4, **CHARACTERISED IN THAT** said data-structure is held by a storage device.

6. Data structure according to claims 2 to 5 for use in access test executed by a generic test device.

10                   7. Data structure according to claim 6, **CHARACTERISED IN THAT** said access tests of said ASIC include either one of Read/Write of multiple patterns to two registers, data-bus test, address-bus test, device reset test or test initial values of all registers.

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